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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Paper No. 26

Serial Number: 08/062,021  
Filing Date: May 14, 1993  
Appellants:  
Lynn Bergmeyer  
Thomas J. Cummins  
John B. Findlay  
JoAnne Kerschner

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Stasia L. Ogden  
For Appellants

GROUP 1800

SUPPLEMENTAL EXAMINER'S ANSWER

This is in response to Appellant's Reply Brief filed January 29, 1996.

(1) *Status of claims.*

The statement of the status of claims contained in the Reply Brief is correct.

(2) *Status of Amendments After Final.*

The Appellants' statement of the status of amendments after final rejection contained in the Reply Brief is correct.

(3) *Summary of invention.*

The summary of invention contained in the Reply Brief is correct.

(4) *Issues.*

The Appellant's statement of the issues in the Reply Brief is correct at the time the Reply Brief was filed.

(5) *Grouping of claims.*

Claims 1-8, 10-13, 16-20, 22-27, 30, 31, 33, 35-42 stand or fall together. Appellants' argument for that the claims do not stand or fall together has been fully considered by the examiner but it is not deemed persuasive. In the Appeal Brief, filed September 22, 1994, Applicant indicated that the claims are considered as two groups; and in the Reply Brief, the claims are as three groups. Contrary to Appellants' assertion that they have argued for the independent patentability of each group of claims, the examiner has found none set forth in either the Appeal Brief or the Reply Brief. Moreover, the examiner does not agree with Appellants that the claims are independently patentable, as they are drawn to, or methods of using, similar subject matter - oligonucleotide primers for detecting CMV, the patentability of which is at issue. For that reason, the claims stand or fall together.

(6) *Claims appealed.*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(7) *Prior Art of record.*

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

Nedjar et al. (1991) J. Virol. Meth. 35, pp. 297-304;

Brytting et al. (1991) J. Virol. Meth. 32, pp. 127-138;

Gibbs et al. (1990) Genomics 7, pp. 235-244;

Findlay et al. (August 9, 1990) WO 90/08840.

Chamberlain et al. (1988) Nuc. Acids Res. 16, pp. 11141-11156.

(8) *New prior art.*

None.

(9) *Examiner's response to Appellants' argument to new ground of rejection.*

A. The rejection of Claim 38 under 35 U.S.C. 103 as being unpatentable over Brytting et al. in view of Gibbs et al. is maintained. Appellants' argument has been fully considered by the examiner but it is not deemed persuasive. There are several factors which Appellants allege would have overcome the rejection.

First, Brytting et al. teach a set of two primers which differ from the primers recited in the claim. Second, Gibbs et al. teaches a detailed analysis for the design of primers for the hypoxanthine phosphoribosyltransferase gene. Both references do not teach the primers recited in the claim.

The examiner agrees with Appellants that the references separately do not teach the invention. However, a combination of the two references would have led an ordinary skill in the art to arrive at the invention. An ordinary skill in the art would have been motivated to combine Brytting et al. and Gibbs et al. because for detecting CMV, the artisan would need nucleotide information of CMV and how primers are designed to specifically detect the target CMV; the former of which is taught in Brytting et al. while the latter in Gibbs et al. Although the target gene in Gibbs et al. is not CMV, the teaching therein would apply to the design of primers targeted to any genes since nucleic acid hybridization is what is relevant, not the identity of the genes.

Appellants also point that Gibbs et al. teaches that the primers should consist of 24 nucleotides with a GC content of 50%, and that the primers of the invention do not all have a length of 24 nucleotides and the GC content is not exact at 50% as taught in Gibbs et al. This is not true because not only the primers taught in Gibbs et al. fall in the 50% range but also in a larger range, for instance, the first sense primer and

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antisense primer taught in Figure 1 (page 236) have 54% and 75% GC content, respectively.

B. The rejection of Claims 1-8, 10-13, 16-20, 22-27, 30, 31, 33 and 35-38 under 35 U.S.C. 103 as being unpatentable over Nedjar et al. in view of Brytting et al., in view of Gibbs et al., in view of Chamberlain et al., and in view of Findlay et al. is maintained. Appellants' argument has been fully considered by the examiner but it is not deemed persuasive. The examiner agrees with Appellants that Chamberlain et al. does not teach the "two-temperature" PCR. However, this limitation is not relevant because it is not recited in the claims. Relevant to the claimed invention is that Chamberlain et al. teaches the use of  $1\mu M$  of each primer and 10 units of Taq DNA polymerase per 100  $\mu l$  of the reaction, the limitations that are drawn in the claims. The examiner notes that Appellants did not address these limitations in response to the rejection. The other points that Appellants argued on regarding the teaching of the other cited references have been discussed in the previously mailed Examiner's Answer, and in the discussion of the rejection of Claim 38 set forth in part (A) above.

#### CONCLUSION

It is respectfully submitted that the rejection of the appealed claims in this application is correct and proper for the reasons noted above and thus should be affirmed.

Any inquiry concerning this communication or those earlier from the Examiner should be directed to Paul B. Tran, Ph.D. whose telephone number is (703) 308-4040. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose phone number is (703) 308-0196.

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Paper related to this application may be submitted to Group 1800 by facsimile transmission. Papers should be faxed to Group 1800 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CM1 Fax Center number is (703) 305-3014.

Paul B. Tran, Ph.D.  
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3/5/96

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3/7/96